

What is claimed is:

1. A data processing apparatus that has a plurality of reception interface sections (16, 26) which receive same data from a same data sender and processes data, received by said plurality of reception interface sections, in parallel,

wherein each of said reception interface sections includes a communication error  
5 processing section which, upon occurrence of an error in said received data, stops receiving said data, sends a communication error signal to stop data reception from said data sender to other reception interface sections, and requests said data sender to resend data.

2. The data processing apparatus according to claim 1, wherein when an error occurs in part of received data, said communication error processing section of each of said reception interface sections cancels said error-occurred data, and requests said data sender to resend said canceled data.

3. The data processing apparatus according to claim 1, wherein said data sender sends same serial data, and

when an error occurs in received serial data, said communication error processing section of each of said reception interface sections cancels said error-occurred serial data and  
5 serial data received following that error-occurred serial data, and requests said data sender to resend said canceled serial data.

4. The data processing apparatus according to claim 1, wherein said data sender sends said data packet by packet with a sequence number affixed to each packet, and

when an error occurs in data of the received packet, said communication error processing section of each of said reception interface sections requests said data sender to  
5 resend data packet by packet based on said sequence number affixed to each packet received.

5. The data processing apparatus according to claim 1, further comprising a frequency divider which generates a sync signal by dividing a frequency of a predetermined clock signal and sends said generated sync signal to each of said reception interface sections, and wherein each of said reception interface sections receives data according to said sync signal

5 supplied from said frequency divider.

6. A data processing apparatus that has a transmission interface section which transmits transmission data to a plurality of data receivers at a same timing,

wherein said transmission interface section generates packet data by dividing said transmission data to data of a data length sendable within one period of a predetermined clock signal and sends individual pieces of packet data generated to said plurality of data receivers at the same timing in synchronism with said clock signal.

7. A data processing method that performs parallel processing of data received by a plurality of reception interface sections which receive same data from a same data sender and comprises:

a data reception step of receiving data from said data sender at one of said plurality of reception interface sections;

an error detection step of detecting an error in said received data; and

an error information output step of outputting information on said detected error to other reception interface sections.

8. The data processing method according to claim 7, wherein said data reception step and said error information output step are executed according to a sync signal generated by dividing a frequency of a predetermined clock signal.

9. The data processing method according to claim 8, further comprising:

an error information reception step of receiving error information, output from said other reception interface sections, at said one of said reception interface sections; and

a data resend requesting step of requesting said data sender to resend data in at least one of a case where an error is detected at said error detection step and a case where error information is received at said error information reception step.

10. The data processing method according to claim 9, further comprising:

a data cancellation step of canceling data; and

a data reception stopping step of stopping data reception, and wherein

said data cancellation step and said data reception stopping step are executed in at  
5 least one of a case where an error is detected at said error detection step and a case where error  
information is received at said error information reception step, and  
said data resend requesting step requests resending of data canceled at said data  
cancellation step.

11. The data processing method according to claim 10, wherein said data cancellation  
step is executed according to said sync signal.

12. A computer program that performs parallel processing of data received by a  
plurality of reception interface sections which receive same data from a same data sender and  
allows a computer to execute:

a data reception step of receiving data from said data sender at one of said plurality of  
5 reception interface sections;

an error detection step of detecting an error in said received data; and

an error information output step of outputting information on said detected error to  
other reception interface sections.

13. The computer program according to claim 12, wherein said data reception step  
and said error information output step are executed according to a sync signal generated by  
dividing a frequency of a predetermined clock signal.

14. The computer program according to claim 13, wherein said computer is allowed  
to further execute:

an error information reception step of receiving error information, output from said  
other reception interface sections, at said one of said reception interface sections; and

5 a data resend requesting step of requesting said data sender to resend data in at least  
one of a case where an error is detected at said error detection step and a case where error  
information is received at said error information reception step.

15. The computer program according to claim 14, wherein said computer is allowed  
to further execute:

- a data cancellation step of canceling data; and
- a data reception stopping step of stopping data reception, and
- 5      said data cancellation step and said data reception stopping step are executed in at least one of a case where an error is detected at said error detection step and a case where error information is received at said error information reception step, and
- said data resend requesting step requests resending of data canceled at said data cancellation step.

16. The computer program according to claim 15, wherein said data cancellation step is executed according to said sync signal.